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ABSTRACT

As geographers incorporate futuristics into geography instruction, they must develop an area of inquiry (geofuturistics) with a clearly defined purpose and direction. Geofuturistics is interpreted as futuristics involving the application of geographic skills, methods, and viewpoints in teaching and research. Although future-oriented research has been more scarce in geography than in other social science disciplines, it is receiving increased emphasis in scholarly research and as a topic at professional geographers' meetings. Trends indicate that geofuturistics education will be acknowledged as an area of geographic specialization and will be offered more frequently in high school and college geography courses. Policies should be developed to guide the use of geofuturistics in the classroom. Specifically, curriculum developers should design materials to help students clarify and evaluate society's values and goals and to realize that the future depends to a great extent upon the present. The conclusion is that geofuturistic education will help students forge a link between education and life if it stresses creative thinking about alternative futures and the use of geographic expertise to effect change. (DB)

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FUTURISTICS AND GEOGRAPHIC EDUCATION

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FUTURISTICS AND GEOGRAPHIC EDUCATION

Preface

Geographic interest in futuristics is motivated by a variety of factors, but none is more fundamentally important than academic geography's growing sense of social and ecological responsibility. eing laid to rest is the notion that geography can fully justify its existence and the large investment of human and physical resources committed to it by simply recording and dispassionately describing the various changes wrought by individuals, cultures, their institutions, and natural forces. Rising in its place is an appreciation that the discipline should do what it reasonably can to harness geographic knowledge, skills, and viewpoints to the need to make the world more liveable and secure. Geography is something to be done as well as known--something to be used not only to study present and anticipated problems, but also to attempt their solution.

This is the context in which I prefer to discuss the subject of futuristics and geographic education. I am naturally interested in what futuristics can do for geographic education, but enlightened self-interest demands that we geographers focus our attention above all on what geographic education can do for futuristics.

I am delighted that geographers are beginning to take futuristics seriously. In view of the fact that geographic education is well suited to make significant contributions in a number of important areas, I am eager to see this potential realized. At the same time, I am concerned that this area of geographic inquiry and instruction--let's call it "geofuturistics"[1]--may evolve with serious built-in defects, and perhaps without a clearly defined sense of purpose and direction. In this paper I will argue that this need not happen, and indeed, must not happen.

Introduction

Non-geographers may be forgiven if they do not understand the educational function and role of geofuturistics. For that matter, few non-geographers know what modern geography itself is, and fewer still know what it is good for. This is largely because geography is an eclectic field that fiercely resists clear delineation. Indeed, it has been said that "geography is a Los Angeles among academic cities in that it spreads over a large area, it merges with its neighbors, and we have a hard time finding the central business district."[2]

Geographers themselves do not find this disturbing, since the somewhat amorphous character of the discipline is one of its principal appeals. Geography has traditionally embraced a holistic view of the world, and while this perspective has not always been appreciated, it has become more vitally important than at any time in human history. The ascendancy of the Spaceship Earth, Global Community, and Earthmanship concepts has exposed the deficiencies of tightly compartmentalized and specialized science, and illuminated the virtues of an integrative science like geography.

But just what <u>is</u> geographic education anyway? Geographers tend to agree that it has three central purposes or functions.[3] One is to enhance understanding of spatial patterns (geographic distributions) and spatial processes (the forces or factors that give rise to spatial patterns). This is the science of spatial organization, and the analysis of urban settlement patterns is an example of locational analysis in practice. Another major purpose of geographic education is to impart knowledge of the relationship between and among man, his activities, and the physical environment. This is the study of man-environment relationships, and a suitable illustration is the investigation of climatic influences on food production systems.

The third major function of geographic education is to impart comprehensive geographical knowledge of specific areas or regions, and by this means enhance understanding of the totality of patterns and processes that lend given regions--Appalachia, for instance--their distinctive character or geographic "personality".[4] This process is regional analysis and the output is regional knowledge.

These three basic forms of geographic expertise are incorporated in one form or another into a wide variety of courses ranging from geographic instruction modules in elementary schools to sophisticated graduate seminars offered by geography departments at Ph.D.-granting institutions.[5] The geography in elementary schools tends to be ultra-basic, and is often taught unimaginatively and unenthusiastically by teachers with little or no training in the field. Brief (and often traumatic) exposure to geography in the lower grades as place-memorization and other rote fact learning is what passes for geographic education for most people. Since geography is similarly given short shrift in the high school curriculum,[6] the typical college student arrives in his first serious geography course as a geographic illiterate.

Realistically speaking, it is at the college level that geographic education comes into its own as a viable enterprise--i.e., one in a position to influence a significant number of individuals who will be society's next generation of leaders. Unfortunately, after allowing for a modest complement of undergraduate geography majors and graduate students, most of the students who end up in college geography classes do not find geography a subject of compelling interest or obvious practical value. Many enrollees gravitate toward geography as the lesser of evils among the options open to them, assuming geography to be a nonrigorous of "soft" social or physical science.

World regional geography is the course most typically chosen, although courses such as Introduction to Geography, Physical Geography and the Geography of North America tend to have relatively high enrollments, and various other geography courses enjoy popularity to some degree as electives or cognates.[7] Regardless of the geography courses taken at the introductory or intermediate level, however, it remains that the typical enrollee lacks anything approaching a solid background in geography or real enthusiasm for the subject matter. These are the blunt facts. We geography instructors have a very brief "shot" at our students by-and-large, and we simply have to make the most of this limited opportunity to eradicate geographic illiteracy.

Making the most of the situation entails cramming as much basic geography into a course as we can. The complexity and diversity of the subject matter being what it is, there is little inclination to devote precious time to anything that can be described as a digression. This brings us to the status of futuristics in the geography curriculum.

The Past: Futuristics as a Digression

Futuristics has in the past been regarded as an exotic, detached element of geographic education. To the extent that it has been taken up at all in introductory textbooks, future-oriented material has been relegated to the last chapter, and accordingly to perfunctory treatment during a last class meeting or two.[8] The few chapters on futuristics that have thus far surfaced in intermediate level texts stand out as anomalies with novelty value. The availability of future-oriented materials notwithstanding, the geographic educators trained to use them creatively in the classroom are a distinct minority, and only a handful have introduced courses specifically focused on futuristics.[9] In sum, geographic education has in the past tended to treat futuristics as a digression or awkward appendage.

In this respect, geography has fallen behind the times and has a lot of catching up to do. While many other academic disciplines were embracing futuristics and elevating it to respected status over the past few decades, geographers seemed scarcely aware that there was a boat to catch, much less that they had a ticket to ride. Lack of textbook and classroom emphasis is but one facet of a broad pattern of neglecting futuristics that permeated the discipline. For example, futuristics or "future studies" is not even listed among the 57 areas of specialization recognized in the most recent (1978) issue of the authoritative Association of American Geographers Directory.[10] Of the approximately 2,000 graduate faculty and staff listed in the current issue of the Guide to Graduate Departments of Geography in the United States and Canada, only two geographers (Stanley Brunn, University of Michigan and Peter Nash, University of Waterloo) indicate "futures" as an area of special interest and competency.[11] Future-oriented research, although occasionally published in traditional geographic outliets, is still rather conspicuously scarce. Similarly, few books on futuristic themes have been reviewed in geographic journals, and discourse and debate on the role of geofuturistics in teaching, research, and public service has scarcely gotten under way.

The Future Revealed: Here Comes Geofuturistics

Evidence nevertheless points to increasing emphasis on futuristics in geography. Articles, reports, and other items drawing attention to geofuturistics are being published with greater frequency, and several articles (as well as papers presented in special sessions at professional meetings) have focused explicitly on the need to bring geofuturistics into the classroom.[12] Several geographers with impressive credentials have lent their considerable professional weight to the push for geofuturistics.

Scholarly interest aside, pragmatic concern for the future of the discipline suggests that geographers will simply have to take futuristics more seriously. There is a growing realization that professional geographers must be schooled in social and technological forecasting if they are to continue to compete successfully for the planning positions and other jobs in business and government which are rapidly overshadowing the shinking academic marketplace. Geography departments also relish the potential for increased enrollments inherent in offering such popular subject matter as futuristics in their service courses.

Geofuturistics seems poised at the "take off" stage, and those of us who have been awaiting this development can only say: "It's about time!" But exactly where all of this is leading is an interesting question; perhaps a Delphi study is in order here. Meanwhile, a simple trend forecast suggests that the following outcomes may be expected:

(1) Official acknowledgement of futuristics as a geographic sub-discipline or area of specialization;

(2) A substantial increase in the future-oriented content of college and high school geography courses;

(3) Most college geography departments offering at least one course devoted to geofuturistics;

(4) More geography textbooks incorporating future-oriented material throughout rather than relegating it to tail-end chapters;

(5) Future-oriented articles, reports, book reviews, and similar items routinely published in geographical journals;

(6) Special paper sessions and workshops devoted to geofuturistics routinely offered at professional meetings;

*7) Publication of textbooks, monographs, resource papers, directories, and bibliographies devoted to geofuturistics;

(8) Establishment of a specialty journal devoted to monitoring the research frontiers and applications of geofuturistics;

(9) Many currently practicing professional geographers acquiring special interests, research skills, and teaching abilities related to geofuturistics;

(10) Considerably greater emphasis on futuristic methodologies and skills in training new geography teachers;

(11) Development of a broad range of methodologies and expository or instructional techniques for geofuturistics;

(12) Geographers serving in future studies institute staffing positions on a routine basis; and

(13) A new array of non-academic job opportunities in both public and private enterprises and organizations for geographers trained in futuristics.

This list is suggestive rather than definitive. It is also argumentative, and there is a liberal dose of wishful thinking in there too. Nevertheless, each of these outcomes is a perfectly plausible one.

Policy Considerations for Using Geographic Futuristics in the Classroom

Assuming that futuristics will at the very least occupy a more prominent position in geographic education, just what is to be accomplished? What policies should guide the use of geofuturistics in the classroom?

In the overview, geofuturistics must be recognized as but one of many elements in the broadly conceived future-oriented curriculum of studies that is emerging as colleges and schools "futurize" their curricula. Geographers should accordingly be aware of the objectives of the total curriculum and foster skills acquisition and behavior modification that is consistent with these broad objectives. The basic skills taught in <u>any</u> educational curriculum worthy of the name are: accessing information; thinking clearly; communicating

effectively; understanding man's environment; understanding man and society; and developing personal competencies that foster full realization of individual potential.[13] A "futurized" curriculum specifies skills acquisition and behavior modification goals recognizing the need to help students:[14]

(1) Develop the ability to imagine and assess the implications of many possible futures;

(2) Realize that the future depends to a great extent on what is happening now;

(3) Recognize the multi-faceted impact of technology on society;

(4) Realize that anticipated changes may alter their personal life styles and aspirations;

(5) Search for and identify significant trends;

(6) Recognize the need to adapt to change as well as anticipate it;

(7) Realize that they can be actively involved in influencing their own future;

(8) Develop a sense of personal commitment to socially and ecologically responsible behavior;

(9) Clarify their own values and goals;

(10) Clarify and evaluate society's values and goals;

(11) Understand the basic requirements for human survival;

(12) Understand mankind as a single global community; and

(13) Develop abilities to teach themselves by integrating information and ideas from diverse sources.

There is no inherent reason why a "futurized" geography curriculum cannot address itself to every one of these goals.

Another major consideration is that geofuturistics cannot be conceptualized as though it were simply contemporary geography pushed five years or more

ahead but otherwise basically unchanged. There are at least three serious problems associated with regarding futuristics as a temporal extension of contemporary geography, and each relates to a significant shortcoming of academic geography as we have tended to practice it.

First, it portends continued emphasis upon "knowing" geography in the academic sense rather than upon creatively using geographic expertise to effect change. Futuristics as a field must draw students into active participation in shaping their future, and this holds no less true for geofuturistics. It would indeed be a pity if geographers were to construe futuristics as mere fodder for intellectual production and consumption. Simply stated, geographic futuristics should be taught as applied geography.

A second problem is that we might very well perpetuate our current predilection for treating the future as though it were ordained to be a "patched-up and polished" version of the present. Contemporary geographers have a deep and abiding affection for the spatial metrics of the familiar past and present, and many cannot abide the notion that these metrics will be revoked in large measure by events to come. We are in love with trend extrapolation, and it is clear that we are leading with our hearts rather than with our heads. The solution is clear: geofuturistic education should take fully into account the fact that a variety of possible alternative futures involve spatial patterns and processes so radically different from those of the present that our current theories and models of spatial organization and interaction are utterly incapable of accommodating them. We need to really turn our geographic imaginations loose; to image, for example, the economic geography of a future in which electricity is too abundant and cheap to meter, or the recreational geography of a future in which people travel to distant continents in the time it now takes them to drive across town. From this perspective--aided by our knowledge of the present, but not shackled by it--we can challenge our students with the guiding questions in geofuturistics:[15]

(1) Where will future occurrences happen?

(2) What kinds of spatial patterns will be produced by these occurrences?

(3) Which possible alternative futures are "spatially viable"?

(4) What changes in present systems of spatial organization and interaction will be necessary to create desirable futures? (and)

(5) By what means can these changes be effected?

A third problem involved with "fitting" geofuturistic education to contemporary geography is the risk that it will perpetuate our tendency to teach what we prefer to teach rather than what students need and want to learn. The geographic literature is replete with scholarship that expands the scope of human understanding and insight. However, by following our curiosity wherever it has led us, we have produced a good deal of scholarship that is of trivial significance to human well-being. Futuristics is supposed to forge a link between education and life in the "real world," and geofuturistic education should accordingly focus on essential learning needs. The primary objectives of the future-oriented curriculum, as outlined above, offer an index of value against which any geographic topic or approach can be measured. It must be used honestly. Having already alluded to the brief exposure to modern geography that the typical college student gets, I will simply add that the time devoted to geofuturistic education must be wisely used to communicate knowledge of how to cope with a highly complex and rapidly changing milieu. An excellent example of this principal in practice is Brunn's[16] endorsement of twelve future-oriented lecture and discussion topics for the geography classroom, including: future study rationales and methods; the role of change; time-space convergence; global interdependence; population; food; man-environment relations; resources and energy; limits to growth; life styles; politics; and cities.

Conclusions

The geography curriculum is finally being "futurized", and we can confidently expect that geofuturistics will substantially influence geographic education. This is a healthy trend in geography, a trend toward creatively using geographic expertise in ways that are mutually beneficial to the discipline, to the students we teach, and to the world society we serve. Nevertheless, it is an incipient trend that will need strong guidance as well as careful nurturing. In this paper I have emphasized that the "futurized" geography curriculum should establish teaching objectives consistent with those recommended for future-oriented curricula in general, and that geofuturistic education should not be encumbered by the deficiencies of academic geography as it is currently practiced. Much more dialogue and debate on these and related policy matters is needed, and there is little doubt that it will soon be forthcoming.

Footnotes

[1]The term "geofuturistics" is herein used in reference to futuristics involving the application of geographic skills, methods, and viewpoints in teaching, research, and service contexts. This term has apparently not been used before, but I feel that it is more appropriate than "geographic futuristics" or similar terms because of its efficiency when used in the adjective mode (e.g., geofuturistic education and geofuturistic research).

[2]William D. Pattison and Salvatore J. Natoli, "Change in Geography: The Doing Dimension," Change 9 (July 1977): 10.

[3]See, for example, Rhoads Murphy, The Scope of Geography, 2nd ed. (Chicago: Rand McNally College Publishing Co., 1973), pp. 4-6; and Richard L. Morrill, The Spatial Organization of Society (Belmont, California: Duxbury Press, 1970), pp. 3-4.

[4]See. J. H. Patterson, North America, 5th ed. (New York: Oxford University Press, 1975), pp. 130-133.

[5]A listing of college student enrollments by states, institutions, and courses will be found in J. R. Schwendeman, Sr. and J. R. Schwendeman, Jr., Directory of College Geography of the United States, Academic Year 1977-1978 (Richmond, Kentucky: Department of Geography, Eastern Kentucky University, 1978). Also see the Guide to Graduate Departments of Geography in the United States and Canada, 1978-1979 (Washington, D. C.: Association of American Geographer, 1978).

[6]In 1973 there were approximately 2.3 million students in the U.S. enrolled in geography courses in the grades 7-12. The vast majority were using inadequate texts with badly outdated material. Fewer than 10 percent were utilizing materials from the High School Geography Project, the major attempt on the part of the discipline to disseminate modern geography concepts and methods to the secondary schools (Richard H. Jackson, "The Persistence of Outmoded Ideas in High School Geography Texts" Journal of Geography 75 [October 1976]: 407).

[7]During 1976-1977 about 397,000 students were enrolled in introductory level geography courses in some 2,329 institutions throughout the U.S. Courses falling under the general heading of "economic geography" (conservation, resources, trade, transportation, industrial, commercial, urban, planning, agriculture) accounted for the greatest number of enrollees (87,787) at the intermediate and advanced levels. Other course groups at the intermediate and advanced levels, listed in order of total enrollment, are: weather and climate (16,952); cartography, graphics, maps, map interpretation, air photo interpretation, remote sensing (15,635); North America, Anglo-America, U.S. and Canada (14,096); political, foundations of world power, world affairs/problems, historical, influences on history (10,521); Europe (5,138); and South America, Latin America (4,199) Schwendeman and Schwendeman, Directory of College Geography, op. cit., p. 2.

[8]Stanley D. Brunn, "The Geography of the Future: A Neglected Segment in World Regional Geography Courses," The Professional Geographer 28 (November 1976): 400.

[9]Apparently, no list of courses in geofuturistics has yet been compiled. If such a list were compiled, it might be difficult to categorize those with an urban and/or regional planning focus. Geographers specializing in the planning field might reasonably argue that their planning courses are self-evidently courses in geofuturistics. In any event, geography courses with the words "future," "futures," "future studies," or "futuristics" in their titles are very few, reflecting that the offering of future-oriented material is seldom the primary focus of a geography course. The author of this paper teaches a course on "The Geography of the American Future" at the University of South Carolina and assumes that a survey would reveal fewer than a dozen courses of its type offered in other college geography departments.

[10]Association of American Geographers. Directory of the Association of American Geographers, 1978. Washington, D. C.: Association of American Geographers, 1978.

[11]Association of American Geographers. Guide to Graduate Departments of Geography in the United States and Canada, 1978-1979, Washington, D.C.,: Association of American Geographers, 1978.

[12]A selected bibliography of recent publications and papers on the theme of geofuturistics accompanies this paper. Geofuturistic education is a salient theme in the following: C. Murray Austin and John D. Gunter, "Incorporating a Futures Perspective in Geographic Education," Bulletin of the Illinois Geographical Society (Fall, 1977): 61-74; Stanley D. Brunn, "The Geography of the Future: A Neglected Segment in World Regional Courses," The Professional Geographer 28 (November 1976): 400-401; John D. Gunter, C. Murray Austin, and Michael L. Crane, "Geography and Future Studies: Some Ideas for Providing a Futures Orientation to Geography Courses," unpublished working paper, Department of Geography, University of Northern Iowa, n.d.; Robert L. Janiskee, review of Edward Cornish and others, The Study of the Future: An Introduction to the Art and Science of Understanding and Shaping Tomorrow's World (Washington, D.C.: The World Future Society, 1977) in The Professional Geographer 30 (May 1978): 218-219; idem., Further Comment on Future-Oriented Materials in World Regional Geography Courses," The Professional Geographer 29 (November 1977): 410; Warren A. Johnson, "The Future as a Learning Exercise in Geography," Journal of Geography 73 (December 1974): 59-63; Gary A. Klee, "Future Studies and Geography," Journal of Geography 74 (October 1975): 430-436; Peter Nash, "From Promethean Faith to Protean Belief and Sisyphean Affirmation: Stages of 'Futures' Learning in Geographic Education and Research," paper presented at the annual meeting of the Association of American Geographers, New Orleans, April, 1978; and Etzel Percy, A Thirty-Eight State U.S.A, Plycon Monograph Series No. 2 (Fullerton, Calif.: Plycon Press, 1973).

[13]Edward Cornish and others, The Study of the Future, op. cit., p. 210.

[14]After Gunter, Austin, and Crane, "Geography and Future Studies," op. cit., Table 1. Also see "The Coming Revolution in Education," pp. 209-216, and "Basic Principles of Futurism," pp. 93-102 in Edward Cornish and others, The Study of the Future, op. cit.

[15]After Austin and Gunter, "Incorporating a Futures Perspective, op. cit., p. 67.

[16]Brunn, "The Geography of the Future," op. cit., pp. 400-401.

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